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PART III

THE PREHISTORIC RUINS OF THE SOUTHWEST

BY PROFESSOR U. FRANCIS DUFF

THROUGHOUT an extensive territory in the southwestern part of the United States, including the greater portions of Arizona and New Mexico and parts of Colorado and Utah, scattered through the high valleys of the great plateau region and located in recesses in the walls of the mighty canyons, which here scar the rugged face of nature, are found a vast number of most remarkable and interesting groups of prehistoric ruins.

It has been claimed that their inhabitants were closely allied in relationship to the Aztecs of Mexico; but this is not likely, although they were, no doubt, closely related to the modern Pueblo Indians.

The ruins, of which there are thousands, may be divided into three general classes or kinds:—Cliff-dwellings, Cavate lodges and village or pueblo ruins. The Cliff dwellings were great stone houses built in recesses in the tremendous walls forming the sides of deep canyons. These walls are generally formations of sedimentary rock, layers of a very hard air-resisting sandstone, alternating with beds of a very powdery coquillary stone. The latter strata, becoming disintegrated by the action of natural agents, left holes, cavities and grottoes of all dimensions, with the sandstone on top forming a roof. In some places the erosions extend along the entire surface of the bed, leaving a long, but as a rule not very deep gallery. Everywhere on the cliffs and in the inequalities in the rocks, the Cliff-dwellers laboriously succeeded in building their houses. Any situation seemed to please them, provided it gave hope of a little security.

The cavate lodges are located in cliffs of some soft friable material, the dwellers having taken advantage of the character of the rock to work themselves out homes. Sometimes they utilized natural caves, walling up the front, with the exception of a doorway.

The village, or pueblo ruins may be mentioned as belonging to two classes; the older ones were built in the valleys, near their farming lands,

but later their sites were removed to promontories, or little hills jutting out into the valleys. Some were built on even more inaccessible highlands.

Cliff dwellings are numerous in many parts of the southwest, but perhaps the best examples of this form of house are to be found in the San Juan country, in Colorado; in Canon de Chelly, in Arizona and New Mexico; in Walnut Canyon and the valley of the Rio Gila, in Arizona.

The cliff house takes its shape from the platform on which it stands, and it is wonderful to see the art with which the walls are soldered to the sides of the rock, and the care with which the appearance of the neighboring rocks is reproduced in the exterior architecture. Some maintain that these dwellings are more recent than the pueblos, but the stone arrows and the fragments of pottery which have been found hardly bear out this view. [See Frontispiece Part I. Upper illustration.]

No part of the whole southwest is so rich in communal cliff dwellings, as the Mesa Verde in the southwestern part of Colorado. This is a great timbered plateau some 35 miles long and 12 or 15 wide. The Mancos river, flowing through it, with its tributaries, has at some far-distant period ploughed across it, a number of deep canons. It is in the towering walls of these mighty chasms, that the Cliff men built some of their most elaborate and imposing strongholds. Here, perched like eagles' nests in the vast clefts, are houses containing from one hundred to two hundred rooms. Some of the dwellings are as much as 800 feet above the level of the river, with at this time, no visible means of approaching them. Others can be reached through the medium of tortuous paths, with here and there shallow foot-holds and notches cut in the rock.

One is continuously impressed, in excavating, by the wonderful preservation of things which in most climates would have quickly rotted. The climate is so very dry and the remains have been so well protected from rain in the deep caverns and grottoes, that the usual processes of decay have been largely held in check.

In the heaps of refuse, which are found in the recesses back of the houses and on some of the shelves not used for building, where shallow pits have been scooped out and sometimes lined with stones or clay, are found the bodies of the dead. Many of the skeletons are well preserved, and occasionally the whole body is mummified and in very perfect shape.

The inner walls of the houses are usually coated with a thin layer of plaster and the rooms are of many shapes and sizes, with a fire-place usually in one corner, but sometimes in the center of the room.

The Cliff-dweller was a man of the stone age; arrow-heads, stone knives and stone axes are found in abundance, but no copper tools. Many mortars and pestles, metates, or grinding-stones, beads, bone punches, charms and ornaments and a great deal of fine pottery are exhumed. Sandals woven of the yucca plant, baskets, head-rings, feather blankets interwoven with yucca fiber and another kind made with rods strung something after the manner of a venetian blind, are frequently met with.

I am of the opinion that the Cliff dweller did not resort to such elevated and in many cases, almost inaccessible sites because he was a coward, but from the fact that they were bound to the soil by more ties than the wild wandering tribes that surrounded them, because they were agriculturists and in order to be near such land as was suited to their purpose, they



MUMMIES FROM GRAND GULCH, S. E. UTAH



ESTUFA IN PUEBLO BONITO, N. M., SHOWING FIREPLACE IN CENTER

[From a photograph by Mr. George H. Pepper]

could afford to put up with the many inconveniences unavoidably attendant upon their manner of life.

The savage hunter, after a fierce foray, vanished into the dim distance, it was a part of life, but the agriculturist driven from his home, was ruined.

The cliff dwellings at various places offer about the same field to the investigator. The buildings vary only in the modifications made necessary to meet the requirements of local conditions; these generally have to do with availability of site and building material. In all, the remains are quite similar, showing a like condition of life.

Cavate lodges comprise a type of structure closely related to Cliff houses; the term is comparatively a new one and the structures themselves are not widely known. They differ from the cliff house and cave dwellings principally in the fact that they are hollowed out of cliffs and hills chiefly by human agency; the difference is principally if not wholly the result of a different physical environment. Cavate lodges are known to occur in considerable numbers, in but four regions in the United States, viz.; on San Juan River, near its mouth; on the western side of the Rio Grande near the pueblo of Santa Clara; near Flagstaff, Arizona and in the valley of the Rio Verde, in Arizona. In the cliffs along the last mentioned river there are thousands of cavate lodges, sometimes in clusters of two or three and again in groups comprising several hundred rooms. All the strata comprising the formation of the cliff here are very soft and are in some places minutely laminated, so that a blow on the roof with a stone or other implement will bring off slabs varying from $\frac{1}{2}$ to $1\frac{1}{2}$ inches in thickness. Under these conditions the excavating of a room even with the most primitive tools, did not require a great amount of effort.

Both cavate lodges and cliff dwellings proper are frequently connected with village ruins, located either in the valleys below or on the mesas above them. It may be, that in some instances, they occupied the village during a portion of the year, probably in the summer season, while their crops were growing; this is mere conjecture, but it is known to be the custom of some of the modern pueblos.

While cavate lodges are not of infrequent occurrence and cliff dwellings are located by the hundreds in scores of places in the southwest, they do not begin to compare in number and frequency with the village or pueblo ruins, which are found in the valleys of the streams; in the high basins scattered through the mountains and on the very ranges themselves, throughout the whole of this tremendous region.

In New Mexico, Arizona and Utah, there are literally thousands of these moldering remains of a forgotten and mysterious past. In most cases there is now left to mark their sites but little more than a great heap of stones and earth, although very rarely the walls of buildings which were four or five stories high, are still standing. The greater number of these ruins are found in the western half of New Mexico, the eastern half of Arizona, the southeastern part of Utah and southwestern Colorado. Many of these old communal houses were of great size; the ruins of one on the Rio Verde in Arizona cover an area of 5 acres, and there are 225 rooms on the ground floor.

A study of the modern pueblos of Zuni, Taos, Acoma and others, will, I think, give a very good idea of life as it existed in those which were but dust and ashes when Coronado with his gallant little band of adventurers



GENERAL VIEW OF PUEBLO BONITO, AS SEEN FROM THE CLIFF AT THE NORTH OF THE RUIN
THE DARK LINE RUNNING ACROSS THE PICTURE IS THE ARROYO, OR CHACO RIVER, AND THE MESA BEYOND FORMS THE SOUTHERN LIMIT OF THE CANYON
[From a photograph by Mr. George H. Pepper, Director of the Hyde Expedition]

crept slowly northward across the gleaming sands of that wonderful new land. The style of architecture employed by the builders of the houses which are now in ruins, is found on investigation, to be practically the same as that of the modern pueblos.

In the western part of Socorro County, New Mexico, about 30 miles from the line of Arizona, in the valleys of the Rio San Francisco and its tributary the Rio Tularosa, is a region rich in prehistoric remains. As these are typical remains, a short account of them will probably convey a better idea of the ruins than a more general description of all. The most striking of these old stone dwellings lie along the upper course of the Rio Tularosa, where they are found in great numbers from its source on the western slope of the continental divide to a point 16 miles below, where the valley narrows to a mere rocky gorge or box canyon.

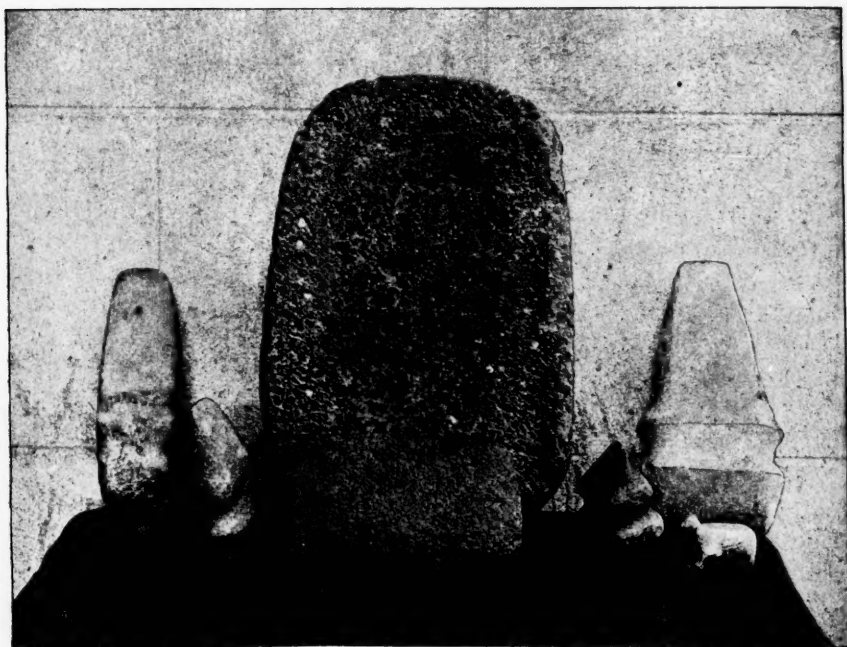
The valley of the Rio Tularosa is limited in extent, being in no place more than one-half mile in width; the soil, which is deep, rich alluvium, is of amazing fertility and productiveness. From the head of the river to the box canyon I counted 78 ruins on the southern bank and 68 on its northern. The houses, which were built of stone set in adobe mortar, varied in size from the single-room, one-story building to structures three or four stories high, and probably containing several hundred rooms. It is not likely that they were all occupied simultaneously, nor is it probable that the population, either here or elsewhere, was ever so great as the number of buildings might lead one to suppose. Most of the ruins are found on little promontories jutting out from the base of the slope; others were built on elevated flats, but always out of the reach of high water, and where possible, in a defensible position. Here in the bygone centuries the primitive man lived his little round of life,—how many ages ago is at present unknown. The extreme age of the ruins is shown by their present condition, even the largest of them being no more than a great heap of stones and earth [See Casa Grande Ruin, Frontispiece Part I.]; while in some gigantic trees are standing, which are evidently the growth of centuries.

The rooms of these old castles varied greatly in size; many are about 9 by 6 feet, while others will be four or five times as large. None of the houses were supplied with chimneys and the smoke escaped as best it might; probably through the hole in the ceiling when another room was not located above, or maybe through the small openings in the walls, which are occasionally discovered. Doorways are not common, being very seldom found in outside walls and ingress was no doubt had from above, as in the modern pueblos. Circular depressions, marking the sites of the estufas, which were underground chambers in which religious ceremonies and councils were held, are found near all of the ruins. According to the testimony of Mariano Ruiz, who lived for many years with the inhabitants of the pueblo of Pecos, as the adopted son of the tribe, the sacred fire was kept burning in the center of these estufas. In all the years he lived with them this fire was carefully attended and on the removal of the weakened remnant of the Pueblo of Jemez, it was conveyed thither.

Over 2,000 pieces of whole pottery have been dug from three ruins on the Delgar ranch, in western New Mexico. The pottery is found in the graves with the dead; many of the graves are under the floors of the rooms, others are located outside the walls, generally on the southern or eastern side. Twenty-one skeletons were exhumed from a single room, and from



POTTERY FROM DELEGERS, NEW MEXICO



METATE AND HAND STONE, STONE AXES, AND IMAGE OF A BEAR, NEW MEXICO

another 9; in these successive burials had been made, one above another. Sometimes 12 or 15 pieces of pottery, or even more, are found grouped about a single skeleton, but the general average is from two to four. Some of the bodies have evidently been wrapped in rude mats; these are so decayed, however, that they crumble to dust when exposed to the air. Judging from their skeletons, they were, generally speaking, men of average height, strong-limbed and heavy-jawed, with well shaped skulls.

Their great respect and reverence for their dead is shown in the fact that they buried them in their living-rooms, and placed in their graves, when they started them upon their long journey so much, that to them, was very precious.

The pottery of the Cliff dwellers and that of the valley people is very much alike, there being five principal kinds: the black-and-white decorated ware; that with the black and red decorations; the corrugated kind; the smooth bowls with black lining, and a plain red variety. It is found in many shapes and sizes; is of excellent make and quality, and the decorations which are of endless variety, are well preserved.

In the rooms of the New Mexico Historical Society at Santa Fe are several hundred stone idols which were excavated from prehistoric villages in the central portion of the territory. These are the property of Hon. L. Bradford Prince, ex-governor of New Mexico, and make a very remarkable collection.

There are very few ruins east of the Rio Grande, the principal exception being that of the so-called Gran Quivira; but these striking remains are, in reality, a modern product, the buildings having been erected under the direction of the Roman Catholic Fathers of the Mission located at that place in the latter part of the XVII century; although there was an Indian pueblo located there previous to the founding of the Mission, of course.

Wonder is often expressed by investigators over the fact that many of the ruins are located miles from water. This is, in part explained, when it is known that the tribes would often "kill" the water, when for any reason, they were compelled to abandon a village. Near his home in Valencia County, New Mexico, Mr. Amado Chavez accidentally discovered a spring which had been killed in this manner.

In crossing a barren plain near his ranch at San Mateo, and near some undistinguishable ruins, he noticed that a bit of ground gave under his horse's feet. Dismounting to investigate, he found that a small area seemed elastic and moved up and down when he jumped. Being of an inquiring turn of mind he took men out to dig there; after removing a foot of earth from an area some 10 feet square, they came to a deep layer of long strips of cedar bark; below this was a floor of pine logs, then another thick layer of bark, and so on down for several feet. Below the last layer they found a little spring of clear water, which has resumed running since they dug it out after centuries of enforced idleness.

For many years there was no water at Gran Quivira, although it was diligently sought for; but recently a spring has been discovered quite near the ruins, which had no doubt been covered up purposely.

It is claimed that evidences of an older occupation even than those above described, has been found at various places in the southwest. The Wetherill brothers who live at Mancos, Colorado, near the Mesa Verde, have exhumed remains of a class of people whom they term "The Basket Makers," that they think antedated the Cliff-dwellers of that section.

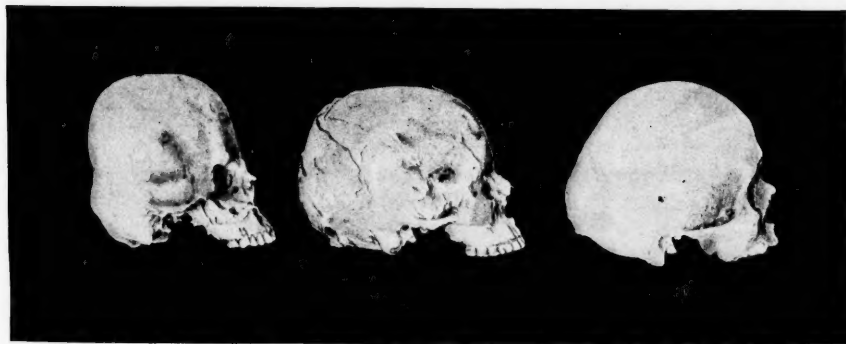
There lies within the borders of Arizona and New Mexico a great lava tract, second in magnitude in our country only to the great northwestern lava field, and fifteen times as large as the classical district of extinct volcanoes in Central France. Within this area ruins are frequently found protruding through the lava, or entirely surrounded by it, their position in the latter case on some slight elevation having protected them from the flood of liquid fire which swept past their walls.

Before archæologic investigation of the pueblo ruins commenced and when there was little knowledge extant by which travelers could check their conclusions, the great number of ruins in this region was commonly attributed to an immense population, some writers placing it as high as 500,000, and even more; beside this figure the present population, about 9,000, seems insignificant. It is very doubtful whether the total population ever exceeded 50,000. On account of failure of water for irrigating purposes, scarcity of game, or the inroads of epidemic diseases, such as diphtheria and others, with all their attending superstitions, those who lived in prehistoric times doubtlessly made many changes in the sites of their dwelling places. With the exception of Acoma, perched on its lofty rock, there is not to-day a single modern pueblo standing where it was at the time of Coronado.

These prehistoric men were farmers and hunters, living upon the products of their fields and of the chase. Of science they knew but little, but in art they were more advanced, as evidenced in the decorations on their pottery, and in carving. It is also known that they carried on a limited commerce, sea-shells having been found in many of their old homes.

Their only overt attempt to bequeath an unlettered history to posterity is found in the rude carvings which they left upon the rocks. The story of their narrow and restricted lives would, no doubt, be the same moving and pathetic recital that all other actors in the great world-drama of existence have been handing down to us through the ages. But must this remain forever a sealed book—one of the "lost tragedies"? Out of the brooding and ineffable silence which hangs over these places of the dead comes no voice.

TYPICAL SKULLS FROM COLORADO



CLIFF DWELLER

BASKET MAKER

MESA OR VALLEY DWELLER



HEAD OF STATUE FROM THE AGORA, CORINTH

ANCIENT CORINTH UNCOVERED

BY ARTHUR STODDARD COOLEY, PH.D.

PART II CONCLUDED

THE excavations of 1898 had enabled us to see Peirene and to identify the Temple of Apollo; 1899 found Glauke and brought us into the Agora; and 1900, while cleaning a considerable part of the market-place, bestowed upon us rich finds of sculpture and added to the collection another fountain quite different from Peirene and Glauke.

The sculpture finds were so many and so important that the Greek government built a simple Museum just west of the village square to house them. Some appear to belong to the Roman Propylæa, and consist of both statues and architectural members. They were discovered all together a short distance west of the propylæa, almost at the very outset of the work.

Of the statues one was recovered almost entire, though in three pieces, with the head perfectly preserved even to the nose, which naturally is very apt to be broken off in a fall. This figure is that of a man, much over life-size, with folded arms and beautiful curls hanging at the sides of the fine head. From the Phrygian cap, short tunic and covered arms and legs he seems to be an Oriental, perhaps a captive. The statue stands close against a pilaster, whose beautiful four-sided Corinthian capital was found and proved to fit, and rested on an altar-like base with a rude relief representing a trophy in the middle, a stumpy Victory on the right and another figure to balance it on the left.

Shortly before this statue was discovered, built into a wall upside down, a very similar figure, but less well preserved than the other, came to light. All was lost below the hips and the nose was missing, having been made separately and set in. This one's head inclined slightly forward and to the right, while the other held his head proudly erect facing the front. A similar base was assigned to this statue. Its relief also contained three figures: at the left a veiled female figure seated and comforting a miniature of the statue itself, kneeling before her and seemingly in great distress; on the extreme right a bearded male figure with a long cloak hanging from the left shoulder, hands clasped in front, and looking not at the group but straight to the front. Between him and the group is a huge helmet resting above two small oval shields crossed.

These reliefs are so poorly designed that one wonders how even the Romans could have used the bases to support the fine figures which may have stood before the piers of the Propylæa as door-keepers, one on either side. For the pilasters behind the statues and the capitals which belonged to them were for a practical purpose, and, moreover, on these capitals fitted the architrave blocks and above these the cornice blocks found close by and most probably to be assigned to the Propylæa. An attempted restoration of the better-preserved statue with its base and capital by a young artist, Master Harry Stoddard [see page 44], will give some idea of its former appearance.

Two colossal female heads of the same marble as the male figures and, as cuttings on the back of the head indicated, designed to stand against a pilaster or its capital may probably be regarded as from statues which stood in corresponding positions on the other face of the Propylæa, guarding the arched passage.

Several large pieces of coffered ceiling were also found with reliefs in the depressions, two representing Helios the Sun, distinguished by his rays, and Selene the Moon with the crescent behind her shoulders. If these pieces are likewise from the Propylæa, we have almost, if not quite enough material for its restoration.

Another showy piece of sculpture was a fine life-size head of Ariadne with the right hand pressing down an ivy wreath upon it. A large fragment of a circular base bearing a relief of two dancing Maenads, two-thirds life-size, probably comes from the pedestal on which this statue stood, either alone or in a group. Both relief and statue may be assigned to Roman times, for though the modeling is good the finish is poor. Of better work and very likely Greek is the right-hand portion of a small votive relief containing seven graceful figures.

Pausanias makes no mention of these statues in his rather brief description, while he does speak of a number of others in the Agora, so it is by no means impossible that later campaigns may yield even richer harvests in the line of sculpture.

The other great discovery of this year was the fountain. As work progressed westward beyond the place where the sculpture was found, about 100 feet from the Propylæa the men came upon a wall some 45 feet long composed of metopes and triglyphs. A remarkable thing about these is that they bear beautiful patterns in red, blue and yellow, the paint being still bright and giving us a good idea of the polychrome decoration of Greek buildings. This wall was not continuous or in the same line, but was broken near its southern end by a door-like opening and the shorter portion beyond lay some distance to the rear of the other.

As they were digging in this opening, the earth gave way beneath them and one man disappeared, sliding down with the dirt into a cavity from which he soon emerged to report a "room with columns and statues." Whatever may have been the case in regard to the statues, there was certainly a room with five rude columns supporting a ceiling formed by a pavement for which the wall of triglyph frieze served as a balustrade. Seven steps led down to the floor of this room whose purpose was revealed by the discovery of two bronze lion-head spouts in place on the back wall of the chamber and beneath them holes in the pavement where water-jars might be set. That this was probably a fountain was further indicated by the fact that this back wall was built under a crust of conglomerate like that in Peirene, where the soft yellow stone, almost clay, beneath was dug out to make water channels. Very likely an investigation would show that behind this wall are similar channels and a reservoir, of course long since dry. The waste water may have been carried off by a drain, of which it is possible that two sections have been found, one just west of the west pier of the Propylæa, the other running outside the north apse of Peirene.

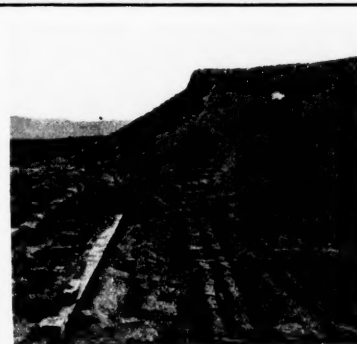
The fountain doubtless dates back to Greek times before the destruction of Corinth. It can hardly be any other that Pausanias describes as follows: "And near by (the Temple of all the gods) has been built a



STATUE OF MUSE, REAR VIEW



PILLAR OF EARTH SHOWS DEPTH OF EXCAVATION



THEATER AT SIKYON



EXCAVATION OF PEIRENE



GRAVES IN THE NORTH APSE

fountain, and over it is a bronze Poseidon, and under the feet of the Poseidon a dolphin spouting water." No remains of this group were found, but on one side of the entrance is a circular base and on the other one of triangular shape on which such a group might have stood. The size of the fountain is not great, but its importance, as Professor Richardson has said [*Independent*, August 2, 1900, p. 1859], "is that it is a unique example of an ancient Greek fountain intact. Peirene had suffered at least two readjustments in Roman times, Glauke had been badly damaged by an earthquake. But this fountain had escaped the attacks of both man and nature."

Compared with the brilliant campaigns preceding that of the past season is rather disappointing, as no remarkable discovery was made. Work was continued still farther to the west beyond the fountain just described and a considerable area was cleared, especially when one considers the great depth of earth which had to be removed.

The western limit of the Agora has not yet been reached, which goes to confirm a conjecture of the writer that it lay beyond the little sunken church of St. John the Divine which may be the successor of a temple of Hermes seen by Pausanias in this part of the Agora.

Northwest of the fountain was a large vaulted chamber underground. This has been cleared out and the earth removed from the outside and it proves to be one of a series of chambers south of the Apollo Temple on what must have been the north side of the Agora. A paved street of Roman or Byzantine times was also discovered. Part of the Byzantine stairway leading up to the Propylaea (see above, p. 38, p. 43 lower illustration) was removed and the Roman pavement found below. What may prove to be the foundation of the Odeion built by Herodes Atticus was unearthed on a slight elevation 150 feet to the southwest of Glauke. This is a foundation of *opus incertum* 106½ feet long and 45 wide. As for sculpture, only two heads of poor workmanship or in bad preservation and the torso of one statue are reported.

The seemingly meagre results should not discourage the friends of the enterprise, for there is just so much less soil to be removed from the Agora, and the way has been cleared just so much for probable future discoveries. It is no small task to clear from 10 to 15 feet of soil a comparatively open space 550 feet in length and 440 feet in breadth, on the average, as the ancient Agora must have been.

It remains now to tell of the finding of the other two fountains, Glauke and Peirene, and to reconstruct their history from the remains.

Mention has been made already of the peculiar block of rock west of the Apollo Temple, with its three chambers which had in recent times served as a stable. It excited our curiosity in 1898 and from its relative position to the temple and the theatre we guessed that it might be the fountain of Glauke or the grave (or monument) of Medea's children. But our work at Peirene and near there occupied our attention too closely to permit of an investigation that season.

In the spring of 1899, however, one day the Director told the writer to take a small gang of men and clear out at least one of the chambers to the bottom. At this time the ceiling of these rock-cut chambers was some 8 to 10 feet above the level of the road which passed close in front of the rock. The earth inside was not level, but sloped toward the back; two of the chambers were partially walled up in front; and openings in the walls be-

tween them and in the outside walls of the rock were roughly filled with stones.

It is not necessary to describe in detail the clearing out of all these chambers to the bottom, for we could not confine ourselves to excavating one. The result was three deep apartments measuring some 28 to 35 feet in length and nearly 20 feet from floor to ceiling, cut out of the rock itself and separated by thin walls of rock diminishing in thickness toward the rear. Their shape and the openings connecting them, as well as stucco on the walls, made us think we had found the fountain-house into whose cooling waters the Corinthian princess Glauke, betrothed to Jason, threw herself to assuage the torture caused by the poisoned wedding garments sent her by the sorceress Medeia, whom Jason had put away to contract the new alliance. From this incident the fountain received its name, and at the grave of Medeia's children near by yearly expiatory sacrifices were long offered by the Corinthian boys to atone for and commemorate the death of vengeance inflicted on the innocent children who bore their mother's fatal gifts to the bride.

No inlet for water was found in any of the chambers, but as a door in the outer wall of the westernmost might lead into something important outside, another trench was dug here. This revealed remains of a fourth chamber, whose former existence had been suggested by a fragment of what looked like a rock ceiling on the western side of the rock, visible in the view of Glauke before excavation. But this chamber was unlike the others in having no back. Instead, it was continued in a south-westerly direction at an angle till it was ended by a transverse wall in which were two large orifices, evidently where the water had come in from a channel beyond the wall and leading off toward Akrocorinth. The front of the chambers was also thoroughly cleared, and our conviction that we had found Glauke was confirmed by a rather complicated system of passages cut in the rock under a broad platform of the same, from which three or four steps led down toward what was probably a street under the present road; also by a deep cistern in front of the second and third chambers, counting from the east.

While clearing this out, beside a jar and some small finds, we were delighted to recover two beautiful marble lion-heads, which manifestly had served as water-spouts at this fountain. The men fairly shouted as these appeared, one close after the other, and as we brought our treasures to the Director the men in the main excavation in their excitement dropped their tools and ran to see the lions. The fortunate workman who dug them up received a large "tip."

The restoration of the facade, gives a good idea of the original appearance of this fountain-house. Very likely, when stone was being quarried here for the Apollo Temple or other buildings in early times, this cube of rock was left and turned into waterworks. Four deep chambers were cut out, leaving just enough of the rock to form walls and back and to support the roof. The westernmost chamber was extended, as described and through it was brought the water to circulate into the other chambers by doors between them. Only the upper part of the northern fronts of the chambers was open above a broad platform with steps, and these openings were further contracted by strong walls forming parapets above the platform and pierced by openings covered in front with marble lion-head spouts. The rock ceiling projected over the platform, being supported at

the ends by walls of rock ending in pilasters and between, opposite the partition walls of the chambers, by three rock columns, whose stumps are left. Thus a delightful and cool resort was formed for those frequenting the fountain, the rock giving a fine rustic effect.

One day long ago a severe earthquake shook Corinth, as is not infrequently the case even to-day, and down came a large part of this rock portico leaving the roof as at the present time. Then probably the two middle chambers were shortened by the building of a wall which formed the deep cistern now to be seen between them and the platform, and the unroofed western chamber was covered in some way and perhaps partially filled up.

The other cuttings in the pavement may perhaps be assigned to a still later stage and there is some evidence that water was flowing here within a century or two. Possibly the feeding channel has been stopped up by an earthquake and later excavations along its course from the wall at the end of the fourth chamber may reveal the cause of the cessation of the water as well as many interesting facts about these early water-works of the Greeks.

The story of Peirene is one of the most romantic in the annals of the excavator. That this fountain existed we knew from Pausanias who locates it just outside the Agora on the street leading to Lechaion, but before we were reasonably sure where the Agora lay we could hardly use these data to determine the situation of Peirene. Indeed, its discovery was almost by accident and enabled us more nearly to locate the market-place. It came about on this wise.

One day during the season of 1896 our foreman Lenz took it into his head to descend a well-shaft in the yard of a citizen of the village, Gregory Tselios by name, whose house and garden lay south-east of the temple hill and on the opposite side of the valley across which trench III was dug, and also just a short distance northwest of the great column drum in trench VII [see fig. 1 on p. 37 in part II]. Squeezing down the narrow well-shaft Lenz found at the bottom a stream of pure water flowing through an underground channel toward the fountain in the Plane Tree Square. Candle in hand he went up stream through a low passage and after crawling a few feet found himself in a large rock chamber through which the water came from a small opening beyond. Squeezing through this opening he entered a spacious cavern from which three passages cut in the soft rock led farther underground. One went southward, how far he could not tell, and was continued to the north by a second, winding and narrow, beyond a chamber like that through which he had come.

The third passage seemed more regularly constructed and turned west at right-angles to those two chambers. Going along this he found on the right a series of double door-like openings leading into four more similar chambers which were partially filled with earth. These doorways had inside the chambers marble lintels with a dental moulding supported in the middle by rude columns. The ceiling of both chambers and passage was formed by a crust of conglomerate such as crops out in various places about Corinth. Beyond the chambers was still another, smaller and irregular in shape, while the six were regularly built rectangular rooms of equal size.

Opposite this last another water channel of considerable width and height led off southward, but at its near end a reservoir was formed by a low

dam, from which the water was conducted in a tile pipe along the passage by the chambers and into the channel below Tselios's well-shaft.

On his return to the upper world Lenz reported his great discovery, but no further investigation was made until 1898, when all of us who formed the excavation company explored the place through this same well-shaft. We were then at work in the field south of trench III not far away, and our conviction was growing that the Agora was to be sought at no great distance to the south of this area. So when the Director turned to Pausanias and read again of the cave-like chambers of Peirene, which lay just outside the market-place, he felt pretty confident that these were the ones so deeply buried under Tselios's garden and determined to excavate them at once.

Not wishing to delay for the slow process of expropriation by the Government, he negotiated with the owner of the property for the portion of land over the chambers, as nearly as he could judge of their location by measurements under and above ground. Our necessity was the shrewd proprietor's opportunity, and, as the sale involved the loss of several precious trees and his well-shaft, he demanded and secured a large price for the plot of ground some 45 feet square. The well we agreed to replace by a pump, tapping the same water-system in the reservoir already mentioned. So Gregory became the possessor of the first modern pump in the village, envied greatly by his neighbors, who still used leather buckets and feared he would get more than his fair share of the water by use of the pump. Threats were even made of destroying the new apparatus, but we had it under strict guard until we turned it over to him complete, and it is probably still working in the little stone house which he built over it in the corner of his yard [see view of Peirene, p. 39].

Before work was begun on the newly purchased land the excavators in the field to the north had come upon what looked like an entrance to something and work was pushed here and at walls nearer the chambers. The track was extended to the new land and eagerly we watched the earth removed, hoping to find the outside of the chambers and to get in through the open fronts through which the earth within had fallen. At length, we found an entrance to the smaller irregular chamber on the west and soon had three chambers next this exposed to view. Their arched doorways are seen in the excavation of Peirene which shows an early stage of the work.

In front of the first two regular chambers (counting from the west) were the remains of a tiny Byzantine chapel with a little apse toward the east as usual. This was too modern for our purposes and had to be removed after proper measurements were taken to indicate it on the plan. Work on the chambers beyond was delayed by the new water-works for Tselios, for which a hole had to be drilled through the hard crust of rock over the reservoir. But at last this hindrance was removed and Gregory exchanged his leather bucket for the pump.

The work was at an advanced stage when we were honored by a visit from His Majesty, King George, who was making a grand tour of his Kingdom. When his approach from New Corinth was announced all was put in as good order as possible and the track covered with green boughs, and preparations were made likewise for his reception in the Plane Tree Square, where he and his suite alighted from their carriages, amid the *Zelos* of the people. He spent a good half-hour in the excavations and was

greatly impressed by Peirene, saying that we Americans must carry to completion this most important undertaking.

Our calculations as to the land over the chambers were not quite correct and we needed more on the east to make it safe to uncover all six chambers. So a heavy scarp wall of loose stones was piled up to hold the overhanging twenty-foot bank till the next season, while we should get more ground in the meantime, and only four chambers and a part of the fifth were left visible from outside. The old tile pipe in the passage behind them was replaced by one of iron and the double doorways from the chambers into this corridor were filled up with masonry to keep out unauthorized persons from the water channels behind.

Work was carried on simultaneously north of the chambers and revealed a massive semi-circular building with niches for three statues, apparently connected with the façade of Peirene by parallel side-walls and thus forming a fine court nearly 50 feet square. The apparent entrance mentioned above proved to be that into Peirene spoken of by Pausanias, leading into the court on the west side of the semi-circular building or apse, to give it a shorter name. The stairway it once contained has disappeared almost entirely, but on the east side of the apse is a similar entrance whose covering is gone, but whose marble stairway with a broad landing in the middle remains with the exception of one stair. It was here on this stairway that two statues were found. One was a tall female figure, headless like all statues found that year, whose drapery behind was especially well done. The other statue was the torso of a well-wrought nude female figure, head and limbs long lost, of seeming Greek work. We called it "Aphrodite" and it may have represented this goddess, whose worship was so prominent at Corinth, or possibly the nymph of the fountain.

In excavating the apse we came upon a number of graves of a late period, possibly a private cemetery connected with the little chapel built before the chambers of Peirene close by. The graves were quite long, the sides and ends built up of stones. No remains of coffins were found, I believe, and the bodies were very likely deposited here without them. The only object recovered except the bones was a tiny glass bottle.

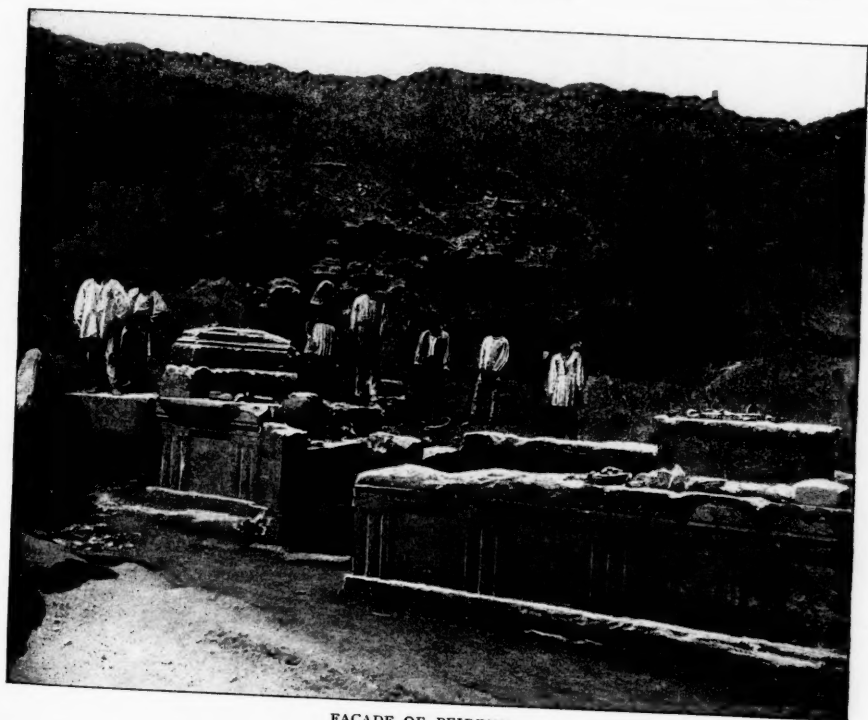
Work was resumed at Peirene early the next season (1899). The temporary retaining wall was removed from the bank, more land having been secured, and the entire façade of six chambers exposed to view. In the centre of the court appeared a large circular basin, 20 feet and 4 inches in diameter and 3 feet, 8 inches deep, the bottom being formed by a fine pavement of an earlier period. A surprise awaited us in the discovery of two more apses, just like the one opposite the chambers, on the other two sides of the court. Each of these likewise had three statue-niches, of which several were still complete with the arched top.

From Pausanias we know that a statue of Apollo stood here, perhaps a Musagetes, though he does not say so, and the nine niches warrant us in supplying to fill them an equal number of statues of the divine sisters who formed his choir. In the court was found also the inscribed base of a statue of Regilla, wife of Herodes Atticus, who fitted the Stadion at Athens with marble seats and built there the Odeion or covered Roman theatre below the Propylaea, as well as the other Odeion at Corinth near Glauke. The inscription reads as follows:—

By the will of the Sisyphean council you behold me, Regilla, an image of virtue, beside the gushing of the fountains.



CAPITAL FROM CORINTH



FAÇADE OF PEIRENE

Even in its ruined state Peirene is very impressive. What must it have been when the traveler saw it with its marble-paved court, fountain façade and the three apses about it being also covered with marble, its statues, its clear water flowing into the chambers and filling the basin in the court and the many people in their graceful garments of varied hues thronging through the entrances and moving about in the enclosure? Some of the marble pavement of the court may be seen there to-day and pieces of the revetment of the buildings were found, while holes in the stone show where the plates of marble were attached.

And now for a brief history of the building:—Among the "seven wise men" of Greece was sometimes counted Periander, Tyrant of Corinth about 600 B. C. Like that other tyrant of two generations later, Peisistratos of Athens, he did much for the beautifying of his city and looked well to its water supply. Peisistratos constructed a system of aqueducts now being cleared out by Dr. Dörpfeld, changed the natural spring of Kallirrhoe into the famous fountain of Enneakrounos, and either built or adorned the Temple of Athena on the Akropolis, and with much probability we may assign to Periander the building of the old Apollo Temple, and the construction of water-works at Glauke and Peirene. Near the top of Akrocorinth is the famous Peirene, struck out of the rock by the hoof of Pegasos, and as the water which issued from under the crust of conglomerate in the town below came from that direction, and not improbably has some connexion with the upper spring, the name Peirene was naturally applied also to the lower spring.

Just what were the Periandrian water-works here we do not know, but in clearing out the corridor behind the chambers of Peirene we came upon the top of a large and well built arched passage which contained water. One of the members of the School explored this passage by swimming and took its measurements until the water reached the top of the arch. Then, for fear the water might escape and do damage, we closed the opening.

Whether it was the work of Periander or not, we may safely assign to Greek times [*i. e.*, before 146 B. C.] an extensive system of water channels cut in the soft clayey rock underlying the crust of conglomerate, which channels were seen by Lenz in 1896 and were explored and mapped by us to a considerable distance in 1898. The channel into which Tselios's well opened probably feeds the fountain in Plane Tree Square. Another running north, east of the sixth chamber was proved to extend to a fountain near the ruins of the Roman bath north of the square, for the same man who swam in the large arched passage crawled in this channel 1,000 feet under ground till he could see where the water flowed out into daylight through a hole, which place was identified by the Director above ground by the mud in the water stirred up by the investigator and greatly discommoding the women who were trying to wash clothes in the fountain.

When these channels were made under the conglomerate crust the chambers were probably constructed at its northern edge for water-basins, the rock being supported on thick walls of poros, which separated the chambers and ended in imitation square pilasters for ornament. Some time later the double doors at the inner end were put in, with their carved marble lintels supported in the center by tiny Ionic columns, as may be seen to-day. Probably there was a court in front of the simple chambers and

may be porticos or apses about this. At any rate, the fountain was so famous even in Pindar's time that he could designate Corinth as "Peirene's city" [*Olym.* 13, 86], and Euripides, in the *Medeia*, whose plot is laid in Corinth, speaks of the old men playing drafts at Peirene [v. 69]. A curious bit of evidence that such games were kept up here in later times is a circular game-board cut or scratched on a slab of the Roman pavement still in place near the western entrance to the court.

When the Romans rebuilt Corinth in 46 B. C., they made some changes at Peirene. In place of the simple chambers with rock ceiling in plain sight they built up a façade of two stories with arches before the chambers, as we see them, and half columns for decoration between the arches and in the upper story. Probably they rebuilt or repaired the court and the three apses and may have raised the level of the court, constructing the circular basin in the centre, though there is some reason to assign this change to a later period.

Pausanias speaks of Peirene as having been adorned with white marble. Hence, we may think that in the second century of our era some public-spirited man like Herodes Atticus, if it was not he himself, had beautified the whole structure, façade, apses, courtyard walls and all,—by covering it with a thin revetment of marble and paving the court with the same. Perhaps it was at this time that the level of the court was raised nearly 4 feet and the circular basin made. It is doubtful whether it was this basin which Pausanias had in mind, when he spoke of an open air fountain into which the water flowed. Indeed, this last year the circular basin was broken up and a much larger quadrangular basin discovered in the court.

The last important change was made in the Byzantine period, some five or six centuries after Christ. To further ornament this popular fountain a "job-lot" of unfluted Roman columns, plain circular bases, good capitals and architrave-blocks of marble was collected and set up before the façade. I say "job-lot," because little care was exercised to make these fit well, there being much variety in size in the bases especially. To this embellishment may be assigned an inscription in red paint discovered by the writer on a large marble architrave-block lying in front of the north apse which states that "this, ? which is seen (some one set up) as an ornament to Peirene."

After this we have but few hints as to the history of the fountain. At some time the little Byzantine chapel was built in front of chambers I and II, and interments were made in the apses and court, especially in the north apse. Very likely by that time the marble had largely disappeared with the statues of Apollo and the Muses, broken up and burned for lime or used in building. The two broken statues found on the stairs of the eastern entrance to the court were evidently abandoned there during removal. Finally the chapel was abandoned and the whole court filled up with soil, until it was at length buried many feet underground to await its resurrection at the hands of a strange people. Even the fountain was discontinued as a public source of supply and its water conducted underground to other places in the village.

I am often asked how to account for the great depth of soil found above these ancient ruins. Some may have been thrown there, as at Troy, to level off for a new settlement after the destruction of the old, or to fill up a hole; some may have been blown there by the winds, which often stir

up blinding dust-storms in the dry season; some perhaps was washed down from the sides of Akrocorinth or on slopes from one level to another; some may have resulted from the ruin of mud houses, though, as stone buildings are now and probably always have been the rule at Corinth, we cannot assign as much influence to this here as in other places. But a good part of it must be from the gradual and natural accumulation of soil in a settlement.

Suppose we assume, for example, that the burial of the court of Peirene has been going on gradually for a 1,000 years. The greatest depth of the paved court from the surface of the surrounding soil is 23 feet. This would make an average accumulation of but 1 foot in $43\frac{1}{2}$ years, or a little over a quarter of an inch a year. Probably several of these causes were operative at Peirene. A careful analysis of the soil as removed perhaps would settle the question, but that is hardly feasible.

To mention a few more cases of the raising of levels at Corinth, we may refer to the different strata clearly marked in the bank of earth still covering part of the market-place; the necessity of the later inclined roadway or stairway to conduct from the Roman paved street to Lechaion to the Byzantine level of the Agora; the Roman court in Peirene, some 4 feet above the Greek (though this may be due to intentional filling); and finally, to an example in the present village square, where one of the fountains fed by the Peirene system must be reached by descending a stairway to a level about 8 feet below the surface. These statements may help us to understand why there is so much earth to be removed before the ancient remains are disclosed.

The results of the five campaigns at Corinth amply justify the work and the comparatively moderate sums expended. Much has been accomplished already, but there is a greater task yet before us, if we would make an excavation worthy of our past record,—one which may stand beside that of the Germans at Olympia, the French at Delphi, and the Greeks at Epidauros. But this can be done, if only the friends of learning in America will stand back of the Athens School and furnish the means to carry on the enterprise so well begun.



CEILING BLOCK WITH HELIOS AND SELENE

THE ROSETTA STONE

THE ROSETTA STONE is the Key that unlocked the mysteries of Ancient Egypt. It is a stele of black basalt, 3 feet, 7 inches in height by 2 feet, 6 inches in width, discovered in 1799 during the French occupation of Egypt, by M. Boussard, an officer of Engineers while engaged in making excavations at Fort St. Julian, 4 miles north of the city of Rosetta, a sea-port-town of Egypt, on the west branch of the Nile, 36 miles east of Alexandria. On the surrender of the French Army to the British forces in 1801, the Stone was deposited in the British Museum. The remarks of Bunsen, the distinguished historian and archæologist, are not without interest here:—

This seemingly insignificant stone shares with the great and splendid work, *La Description de l'Égypte*, the honor of being the only result of vital importance to universal history, accruing from a vast expedition, a brilliant conquest, and a bloody combat for the possession of Egypt. That grand conception, the early forecast of a young hero—the colonization of Egypt by Europeans, which Leibnitz had proposed to Louis XIV., and Bossuet, as a passage in his universal history proves, urgently recommended—had wholly failed, and seemed destined to disappear from the page of history, like a stroke upon the waters, without leaving a trace behind it. After a bloody and fruitlessly protracted struggle, upon which millions of treasure and unnumbered hetacombs of human life were sacrificed, the cradle of civilization, the land of monuments, was again unconditionally surrendered to the dominion of barbarians. * * * Under these circumstances, we may consider that splendid work on Egypt as a sort of sin-offering for all the blood which has been so vainly shed on her soil.

As will be seen from the illustration, the inscription is in three languages, viz., the *Hieroglyphic* which was the original and classic form of Egyptian writing; the *Demotic*, a running or cursive writing, the ordinary hand-writing used in the later dynasties, and the Greek which was understood by all classes at the time the Stone was set up in the Temple of Ptah in Memphis and other temples throughout Egypt about 195 B. C. The following is a translation of the Stone by Professor J. P. Mahaffy, LL. D., and published in his *Ptolemaic Dynasty*.

TRANSLATION OF THE ROSETTA STONE.

In the reign of the young¹—who has also received his royalty from his father—lord of crowns, glorious, who has established Egypt, and is pious towards the gods, superior to his foes, that has set up the life of men, lord of the 30 years' feasts, even as Hephæstos the Great;—of the king, like the sun, a great king of the upper and lower country; of the offspring of the Gods Philopatores, whom Hephæstos (Ptah) has approved,² to whom the sun (Ra) has given the

¹The reader who compares this with the opening of the Canopus decree will at once see what progress Egyptian ideas and style have made in the interval [238–196 B. C.]; the Greek copy is now a slavish translation of the Egyptian. The Greek text is printed with a commentary in *Empire of the Ptolemies*, pp. 316–327.

²This refers to the solemn and private visit paid by the king to the inner shrine of Ptah for his coronation.

victory, the living image of Zeus (Amon), son of the sun, of 'Ptolemy living for ever beloved of Ptah,'¹ in the 9th year, when Aetos, son of Aetos, was priest of Alexander, and the Gods Soteres, and the Gods Adelphi, and the Gods Euergetes, and the Gods Philopatores, and the God Epiphanes Eucharistos;² Pyrrha daughter of Philinos being Athlophoros of Berenike Euergetis, Areia daughter of Diogenes Canephoros of Arsinoe Philadelphos, Eirene daughter of Ptolemy being priestess of Arsinoe Philopator, the 4th of the month Xandikos, according to the Egyptians the 18 of Mecheir. DECREE. The chief priests and prophets and those that enter the holy place for the dressing of the gods, and the feather-bearers and sacred scribes, and all the other priests who have come together to the king from the temples throughout the country to Memphis, for the feast³ of his reception of the sovereignty, that of Ptolemy, 'the everliving beloved of Ptah, the God Epiphanes Eucharistos,'⁴ which he received from his father, being assembled in the temple of Memphis on this day, declared: Since king Ptolemy, etc., the son of king Ptolemy and queen Arsinoe, Gods Philopatores, has much benefited both the temples and those that dwell in them, as well as all those that are his subjects, being a god sprung from a god and goddess (like Horus, the son of Isis and Osiris, who avenged his father Osiris), being benevolently disposed towards the gods, has offered to the temples revenues in money and corn, and has undertaken much outlay to bring Egypt into prosperity, and to establish the temples, and has been generous with all his own means, and of the revenues and taxes which he receives from Egypt some he has wholly⁵ remitted and others he has lightened,⁶ in order that the natives and all the rest might be in prosperity during his reign; but the debts to the crown, which they in Egypt and in the rest of his royalty owed, being many in number,⁷ he has remitted; and those who were in prison, and under accusation for a long time back, he has freed of their charges; and has directed that the revenues of the temples and the yearly allowance given to them, both of corn and money, likewise also the proper share to the gods from vine land, and from parks,⁸ and the other property of the gods, as it was in his father's time, so to remain; and directed also, with regard to the priests, that they should pay no more for their right of consecration (τελεστικόν) than what they were assessed up to the first year of his father's time,⁹ and has relieved the members of the sacred caste from the yearly descent (of the river) to Alexandria, and has directed that the pressgang for the navy shall no longer exist;¹⁰ and of the tax of byssus cloth

¹This is the rendering of his name-cartouche.

²He had therefore already obtained this title, and association in the worship of his predecessors.

³Hence this πανηγυρις was not the actual Egyptian coronation, which took place after his victory in the 8th year, but its commemoration in the 9th.

⁴I shall indicate this recurring cartouche-name by 'etc.'

⁵I suppose εις τελος means no more than this. 'Has merged into the τελος or state revenue from other sources' is possible so far as the Greek goes.

⁶This lightening is said to be expressed in the demotic version by 'gave them the control of,' viz. gave back the collection of them to the priests.

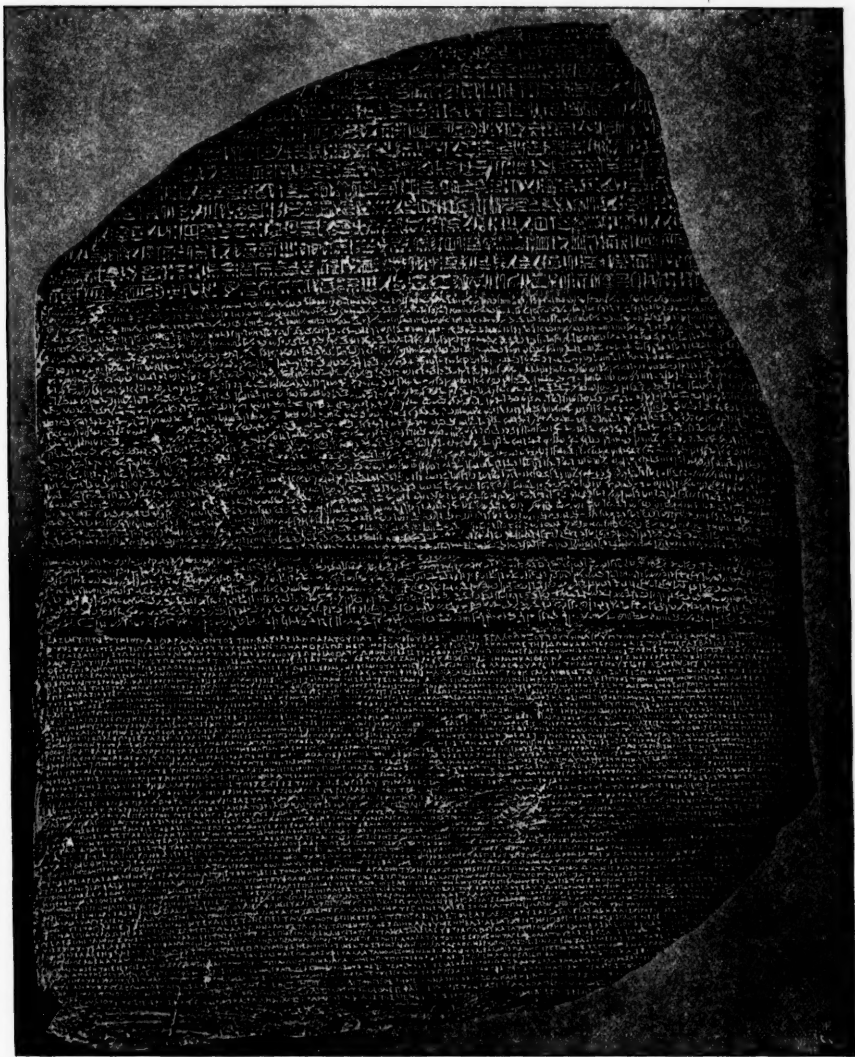
⁷Not 'remitted to the πληθος of priests,' as it is usually rendered; cf. below, line 29, οντα εις σιτου τε και αργυριου πληθος ουκ ολιγον.

⁸We now know that this ἀπόμοιρα amounted to one-sixth, and had been seized by the crown, as a yearly gift to Arsinoe Philadelphus. The priests, whether truly or falsely, imply that it had been restored to the temples. A Petrie papyrus [II. xlvi.], dated the 2nd and 4th year of Epiphanes, speaks of this tax as paid to Arsinoe and the Gods Philopatores, so that the statement of the priests is probably false; but see Revenue Papyrus, p. 121, and Mr. Grenfell's note.

⁹This very puzzling phrase εως του πρωτου ετους επι του πατρος αυτου may possibly mean during that part of the king's first year, in which his father was still alive—the odd months of the last reign always counting into the first year of the new sovereign. Probably Philopator had made some concessions just before his death.

¹⁰συλλήψιν των εις την ναυτειαν may also mean the right of seizing whatever is wanted for the navy. But the word ναυτεια is not known in this sense, and the demotic version, which is said to indicate some compulsory service, has no equivalent for it.

paid by the temples to the crown¹ he has remitted two-thirds; and whatever things were neglected in former times he has restored to their normal condition, having a care how the traditional duties shall be duly paid to the gods; and like-



ROSETTA STONE—PHOTOGRAPH FROM THE ORIGINAL IN THE BRITISH MUSEUM

wise has he apportioned justice to all, like Hermes the great and great.² AND he has ordained that those who come back³ of the warrior caste, and of the rest

¹We now know from the Revenue Papyrus [cols. 98, 99] that there was a tax on the sale of this cloth.

²I have not altered this truly Egyptian phrase, which often occurs in the form *great great*.

³Lit., who come down the river, probably from the insurgents in Upper Egypt, perhaps at Edfu, who were at this time by no means subdued.

who went astray in their allegiance in the days of the confusion, should, on their return,¹ be allowed to occupy their old possessions; and he provided that cavalry and infantry forces should be sent out, and ships, against those who were attacking Egypt by sea and by land, submitting to great outlay in money and corn, in order that the temples, and all that are in the land, might be in safety;² and having gone to Lycopolis, that which is in the Busirite nome,³ which had been taken and fortified against a siege with a lavish magazine of weapons and all other supplies, seeing that the disloyalty was now of long standing among the impious men gathered into it, who had done great harm to the temples and all the dwellers in Egypt, and encamping against them, he surrounded it with mounds and trenches and remarkable fortifications; but when the Nile made a great rise in the 8th year (of his reign), and was wont to inundate the plains, he prevented it, having dammed from many points the outlets of the streams, spending upon this no small amount of money; and having set cavalry and infantry to guard them,⁴ he presently took the town by storm, and destroyed all the impious men in it, even as Hermes and Horus, the son of Isis and Osiris, formerly subdued the rebels in the same district; and the misleaders of the rebels in his father's day, who had disturbed the land, and ill-treated the temples, these when he came to Memphis, avenging his father and his own royalty, he punished as they deserved at the time that he came there to perform the proper ceremonies for his reception of the crown;⁵ and he remitted what was due to the crown in the temples up to his 8 year, being no small amount of corn and money; so also the fines for the byssus cloth not delivered to the crown, and of those delivered the cost of having them verified,⁶ for the same period; he also freed the temples of (the tax of) the artaba for every aroura of sacred land, and the jar of wine for each aroura of vine land; and to Apis and Mnevis he gave many gifts, and to the other sacred animals in Egypt, much more than the kings before him, considering what belonged to them [the gods] in every respect; and for their burials he gave what was suitable lavishly and splendidly, and what was required for private shrines, with sacrifices and festivals and the other customary observances; and the honours of the temples and of Egypt he has maintained according to the laws; and the temple of Apis he has adorned with rich work, spending upon it gold and silver and precious stones,⁷ no small amount; and has founded⁸ temples and shrines and altars, and has repaired those requiring it, having the spirit of a beneficent god in matters pertaining to religion, and finding out the most honourable of the temples [or sites], renewed them during his sovereignty, as was becoming—in requital for

¹It might be inferred from the D. V., which makes the word future (according to Revillout) that we should read *καταπορευομενους*.

²Whether this refers to the campaigns of Skopas in Palestine seems to me doubtful; it seems to mean guarding the frontiers with a large force.

³There was another town in Upper Egypt (the Thebaid), on the site now known at Siout.

⁴*I. e.* The dams; or it may be, owing to the inundation being kept off, that he set his army to invest the rebels, who had hoped the rising Nile would raise the siege.

⁵The repeated mention of this solemn enthronement at Memphis in Egyptian fashion marks a new and great concession to the priests and the national feeling. It is quite certain that neither the second nor third Ptolemy had any such ceremony, almost certain that neither the first nor fourth had. They posed as Hellenistic kings, ruling over an inferior race. Now we have a very different story.

⁶This cause is quite obscure to us, as we do not know what *δελγματισμος* means. The demotic version is said to be, 'the complement for pieces of cloth kept back,' which implies a different reading.

⁷Both H. V. and D. V. give for this *corn*, a curious variant, if Revillout be credible in his rendering.

⁸D. V. 'amplified.'

all of which the gods have given him health, victory, power, and all other good things, his sovereignty remaining to him and his children for all time. WITH PROPITIOUS FORTUNE: It seemed good to the priests of all the temples in the land to increase greatly the existing honours of king Ptolemy, etc., likewise those of his parents, the Gods Philopatores, and of his ancestors, the Gods Euergetes and Gods Adelphi and Gods Soteris, and to set up of the everliving king Ptolemy, etc., an image in the most holy place of every temple, which shall be called that of Ptolemy, the avenger of Egypt, beside which shall stand the leading god of the temple, handing him the emblem of victory, which shall be fashioned [in the Egyptian] fashion;¹ and the priests shall pay homage to the images three times a day, and put upon them the sacred adornment (dress), and perform the other usual honours such as are given to the other gods in the Egyptian festivals; and to establish for king Ptolemy, etc., a statue and golden shrine in each of the temples, and to set it up in the inner chamber with the other shrines; and in the great festivals, in which the shrines go abroad, the shrine of the God Epiphanes Eucharistos shall go abroad with them. AND in order that it may be easily distinguishable now and for all time, there shall be set upon the shrine the ten golden crowns of the king, to which shall be applied an asp, as in the case of asperformed crowns, which are upon other shrines, but in the centre of them shall be the crown called Pschent, which he assumed when he went into the temple at Memphis to perform in it the ceremonies for assuming the royalty; and to place on the square surface round the crowns, beside the afore-mentioned crown, golden phylacteries, [on which shall be inscribed] that it is (the shrine) of the king, who makes manifest *επιφανη* the upper and lower country. And since the 30th of Mechir, on which the birthday of the king is celebrated, and likewise [the 16 of Paophi²] in which he received the royalty from his father, they have considered name-days in the temples, since they were the occasions of great blessings, a feast shall be kept in the temples on these days in every month, on which there shall be sacrifices and libations, and all the ceremonies customary at the other festivals [some words lost], and to keep a feast to Ptolemy, etc., yearly (also) in all the temples of the land from the first of Thoth for 5 days; in which they shall wear garlands, and perform sacrifices, and the other usual honours; and that the priests (. . .) shall be called priests of the God Epiphanes Eucharistos in addition to the names of the other gods whom they serve, and that his priesthood shall be entered upon all formal documents (and engraved on the rings which they wear³), and that private individuals shall also be allowed to keep the feast and set up the afore-named shrine, and have it in their houses, and perform the customary honours at the feasts, both monthly and yearly, in order that it may be published that the men of Egypt magnify and honour the God Epiphanes Eucharistos the king, according to the law. This decree to be set up on a stele of hard stone, in sacred and native and Greek letters, and set up in each of the first, second, and third (rank) temples at the image of the everliving king.

As will be seen from the above translation of the Stone, it was set up by the priests of Memphis in honor of Ptolemy V, (Epiphanes), King of Egypt, who was married when he was 17 years old to the Syrian Princess, Cleopatra I. In connection with Professor Mahaffy's Translation of the Stone, it will be well to bear in mind his word of caution to the reader.

¹From the 40 line onward the fracture at the right side becomes more serious, and invades the text, so that words, not always certain, have to be supplied to fill up the construction. But there can be no doubt regarding the general sense. I have therefore not thought it worth while to indicate each of the gaps at the close of the lines. All the English reader requires is to be assured of the substance and of the sense, and that no modern idea has been imported into the text.

²This date is recovered from the duplicate of the hieroglyphic text from Damanhour.

³This gap is filled up from the parallel passage in the Canopus decree of Ptolemy III.

The first word of caution to the reader is not to regard this document as absolutely trustworthy because it is very formal, and solemnly inscribed on stone. Fortunately, however, there must be some limits to falsehood, and had the priests, for example, copied from earlier documents (as they were wont to do) that this king had brought back the Egyptian gods from Asia, the Greek version at all events would have excited ridicule. So also they could hardly claim remission of taxes in Greek, which the king had not really remitted. The whole text, however, points to a compromise whereby the crown thought to conciliate the priesthood, and so limit or overcome the disloyalty now rampant throughout the country.

This notice of one of the most important monuments of Ancient Egypt would be incomplete without some reference to the discussion of the question as to whom the credit is due for its translation. Nearly a quarter of a century elapsed from its finding to the time when the brilliant French scholar, Champollion, completed his work and gave to the world a key for the translating of the classic language of Ancient Egypt, but to him does not belong the entire credit of the work. Dr. Young, the learned English scholar, laid the foundation upon which Champollion erected his superstructure. So much has been said upon this point that it will be, perhaps, much better to give in conclusion the generous tribute paid to Champollion near the middle of the last Century, by Sir Gardner Wilkinson, who must be regarded as a most competent and fair judge in the matter.

To have had frequent occasion to introduce the name of Champollion, to whom we are so deeply indebted, without paying a just tribute to his talents, is to me a reproach which I cannot suffer to remain unremoved. I do not wish to enter into the question respecting the discovery of the proper mode of reading the hieroglyphics: suffice it to say, that Dr. Young gave the first idea and proof of their alphabetic force, which was even for some time after doubted by Champollion. And that the merit of originality in this point is due to our distinguished countryman, I can bear a satisfactory testimony, having, with my much-regretted friend, Sir William Gell, as early as the summer of 1821, so far profited by Dr. Young's opinions on the subject, as to be enabled to suggest the supposed value of two or three other characters, beside those he had already ascertained; our taking this view of the question being solely in consequence of his discovery *that they were the representatives of letters*. But it remained for the genius of a Champollion to kindle the spark thus obtained into a flame, and to display by its light, the path which led into a clear insight into the subject, to perfect the discovery, and to lay down certain rules, applicable in individual as well as in general cases; and in justice to him be it confessed, that, if our knowledge of hieroglyphics were confined to the limited extent to which it was carried by Dr. Young, we should have no regular system to guide us in the interpretation of them, and should know little more than the alphabetic value of a few letters, without the means of affixing a positive construction to a single sentence on any Egyptian monument.

Had Champollion been disposed to give more credit to the value and originality of Dr. Young's researches, and to admit that the real discovery of the key to the hieroglyphics, which in his dexterous hand proved so useful in unlocking those hidden treasures, was the result of his labors, he would unquestionably have increased his own reputation, without making any sacrifice. In this, as in the case of Mr. Burton's trilingual (or rather trigrammatic) stone, and in a few other points, he may have shown a want of ingenuousness: all have their faults and vanities; but this is not a reason that the memory of one so respectable as Champollion should be aspersed, or due praise refused him; and we cannot forgive the ungenerous conduct of those who, from private pique, summon up and misapply talents to pervert truth; denying the merit of labors, which every

one, acquainted with the subject, knows to have been crowned with unexampled and wonderful success. This is not an era when we could believe men capable of lending themselves to the unworthy office of maligning one no longer living to defend himself, and one who, present or absent, merits and possesses the respect and admiration of every unprejudiced person. Yet have some been found, in more than one country, prompted to this malicious act by personal enmity, envy of his superior talents and success, or by that affectation of skepticism, which, while it endeavors to conceal ignorance, often hopes to acquire credit for discernment and superior knowledge.

When the subject of hieroglyphics becomes better understood, and the world is capable of judging how much we owe to him, the wonderful ingenuity of Champollion will be appreciated; and the greatest praise we can bestow on him is confidently to pronounce, that time will do justice to his merits, and experience prove the truth of what inexperience now calls in question.

Notes

AN ANCIENT NAXIAN cemetery has been discovered near Taormina in Sicily. Its excavation will at once be undertaken.

DOCTORS GRENFELL AND HUNT have resumed their excavations in the Fayum under the auspices of the Egypt Exploration Fund. Their successful work of the past has led to the sending out of a French expedition under Prof. Jouguet and a German expedition under Dr. Rubensohn, both of which are to undertake explorations for papyri in the Fayum.

Mr. A. J. EVANS who has been so prominently identified with recent excavations in the Island of Crete has returned to complete the excavation of the Knossian Palace. The Committee in charge of the work of exploration in the Island recently made an appeal for funds to carry on the work in the east of the Island, but not enough money has been pledged to warrant undertaking it.

THE COMMITTEE of the German *Orient-Gesellschaft* in Berlin resolved to carry on excavations during the present and next season on the site of the ruins of Abusir (Busiris), on the left bank of the Nile. The great Babylonian undertakings of the Society will not be prejudiced in any degree, as the entire costs of the new enterprise have been provided by a wealthy member of the Committee.

NEAR PHÆSTUS in the South of Crete where the Italian archaeologists Halthew and Periner discovered last summer a great palace, there has recently been found, by some peasants, a series of rock tombs in the neighborhood of the palace, which, it is thought, belonged to the same generation of its lords. Each of these tombs, which are of the dome and chamber types, contains several skeletons, richly adorned with gold objects, such as necklaces and rings in which are set engraved gems, representing cult-scenes, demons and other typical Mycenaean subjects. The discovery is of exceptional interest since no tombs have been found pertaining to the great Cretan palaces and it is only in tombs that the rich objects of the luxurious pre-historic civilization of the island are likely to be found.

PRINCE ORSINI, the owner of the estate in which is situated Lake Nemi, a small body of water occupying what was once the crater of a volcano in the Alban Hills, about 32 miles from Rome is lending his aid to another effort to raise the two floating gardens or palaces built by the Emperor Caligula A.D. 41. The vessels measured respectively 225 and 237 feet in length by 60 and 75 feet in width.

The historian Suetonius tells us that Caligula squandered in fantastic schemes during a single year the sum of 2,700,000,000 sesterces (equivalent to about \$100,000,000 of our money) that had been left him by Tiberius, and describes among other remarkable toys constructed for his amusement floating gardens of cedar wood adorned with jewelled prows, rich sculpture, vessels of gold and silver, sails of purple silk, bathrooms of alabaster and bronze and other equally novel and costly features. Upon these floating gardens were vineyards and fruit trees. They were not only places of amusement, but temples in which the mad Emperor worshipped himself. The floors were paved with glass mosaic, the window and door frames were of bronze, many of the decorations were of almost priceless value, and the ordinary equipments were of beautiful design and costly workmanship.

These floating palaces were attached to the shore by chains and bridges were stretched across the water for the purposes of communication. Upon them occurred some of the most extraordinary orgies that a human being ever indulged in, in which cruelty, murder and the most revolting depravity were mingled with music and sport.

For some reason or another, probably during the wars that followed the reign of Caligula, these palaces were sunk, and now lie in the mud 200 yards distant from each other in five fathoms of water; one is 150 feet from the bank and the other about 250 feet.

The first attempt to raise them was made in the thirteenth century, but it was found impossible. In 1446 Cardinal Prospero Colonna employed Leon Batista Alberti, the greatest engineer of that period, but his mechanical appliances were wholly inadequate. He used pontoon bridges, windlasses and inflated bladders. In 1535 Francesco de Marchi of Bologna, a great military engineer, made another attempt, an account of which is given in his work on "Military Architecture." He was unable to do anything, but obtained accurate measurements and other valuable information concerning the objects of his search. A diver who spent several months in their examination brought up samples of richly wrought bronze which had become detached from the decorations. Nothing further was done until 1827, when another engineer succeeded in breaking off the prow of one of the vessels to its permanent injury.

Five years ago Signor Borghi, a learned antiquarian, obtained permission from the Orsini family to make another attempt, and although he was unsuccessful in accomplishing his purpose, he managed, with his grappling irons, to rip up the palaces pretty generally and has probably destroyed much of their value and beauty. He took out many beautiful decorations of bronze and marble, among them a beautiful head of Medusa, before he was stopped by the Minister of Public Instruction, who has charge of antiquarian researches in Italy. The articles are now hidden away to escape confiscation by the Government, which has been trying to get hold of them. There has been a bitter controversy over the matter in the newspapers and in pamphlets, and the Government has forbidden the use of any further methods that will injure the boats. Borghi has therefore organized a company and is now offering the shares for sale in order to raise money to drain the lake far enough to allow him to get at the ships and dredge the bottom for fragments that may have become detached. The boats are made of cedar, with a thick coating of pitch and covered with cloth, on the outside of which a skin of sheet lead of great thickness is fastened with copper nails. The decks are paved with glass mosaics of exquisite beauty.

